lens of the present invention is equated to one lens segment of *Hoffman*, then *Hoffman*'s reflector does not reflect onto the detector radiation "entering the lens" from outside the first field of view. Rather, the reflectors of *Hoffman* reflect onto the sensors radiation which has passed through other lens segments. Moreover, it would not be obvious to replace either or both of the sensors of *Hoffman* by a detector array and nor would this result in the claimed invention. An array is usually used when an image is required. The addition of reflectors directing extra radiation onto the array would distort the image and, therefore, is not an obvious step. Furthermore, if a detector array was substituted in *Hoffman*'s arrangement, the result would not provide a "single image..." as required by claim 1. Therefore, *Hoffman* does not teach, show, or suggest a detector array and a lens arranged to define a first field of view of the apparatus and to provide a single focussed image of a distant scene on the array, and a reflector arranged between the plane of the array and the plane of the lens to define a second field of view which extends beyond the first field of view and to reflect onto the detector array radiation entering the lens from outside the first field of view, as recited in claim 1 and claims depending therefrom. Consequently, Applicant believes claims 1-28 are in condition for allowance and respectfully requests allowance of the same.

Claims 18, 20-22 and 24-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hofmann* in view of *Wiemeyer*, U.S. Patent No. 5,617,077. Claims 18, 20-22 and 24-25 depend, either directly or indirectly, from claim 1. As discussed above, Applicant believes claim 1 is in condition for allowance. Therefore, Applicant also believes claims 18, 20-22 and 24-25 are in condition for allowance and respectfully requests allowance of the same.

Claims 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hofmann* in view of *Rogers*, U.S. Patent No. 6,118,852.

Claim 23 depends indirectly from claim 1. As discussed above, Applicant believes claim 1 is in condition for allowance. Therefore, Applicant also believes claim 23 is in condition for allowance and respectfully requests allowance of the same.

Claims 26-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentablve over *Hofmann* in view of *Chipper*, U.S. Patent No. 5,852,516.

Claims 26-28 depend indirectly from claim 1. As discussed above, Applicant believes claim 1 is in condition for allowance. Therefore, Applicant also believes claims 26-28 are in condition for allowance and respectfully requests allowance of the same.

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the apparatus of the present invention. Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the same be allowed.

Respectfully submitted,

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APPENDIX

Marked Up Version of Changes to the Specification:

Please replace the paragraph bridging page 4 and page 5 with the following paragraph:

Figure 2 shows a similar arrangement of lens 1, detector array 2 and possibly a transparent filter 4, to that of Figure 1 but oblique rays, such as CC', from a distant point fall on a mirror 3 positioned so that they are reflected back on to the array. In order to ensure that rays of the same inclination as CC' but outside the plane of the paper fall on the array the mirror [4] 3 will be an annular mirror with the same axis as the lens, though exact cylindrical symmetry may not be necessary. The curvature of the mirror in the plane of the paper determines which parts of the array are illuminated by oblique rays. The Figure illustrates how with a convex mirror 3 oblique illumination by rays such as CC' from a point source outside the normally imaged scene are reflected onto the array to form a line of illumination in the plane shown in the Figure. If the mirror is a curved annular mirror, point sources at any azimuthal angle situated outside the normally imaged scene will give rise to illumination on the array centred about a line at the corresponding azimuthal angle. It is not always necessary for the mirror to have good optical quality and components fabricated from bright metal or metallised plastic may suffice. The effect of this arrangement is to extend the field of view of the detector array; the field may be divided conceptually into two parts, an inner part where the scene is focused normally, and an outer part where rays from a distant point in the scene illuminate more than one element of the detector array. The lens detector array combination can be used to detect and locate events occurring at individual locations within the normally imaged scene. If an event occurs at an individual location outside the normally imaged scene, such that an arrangement such as that of figure 2 causes it to fall on a number of detectors in the array, the arrangement can also be used to detect the event and locate it approximately in azimuth but not in elevation. The location of elements of the detector array where signals are above a pre-set threshold is determined and well known pattern recognition algorithms can be employed to establish

that the locations are contiguous and lie near a particular azimuthal direction. Suitable detector arrays for use in the invention described include pyroelectric and other thermal detector arrays. Such arrays can be sensitive to a wide range of events in the scene including fire and intruders, and can be mounted on or form an integral part of a silicon integrated circuit 12 which is used to interrogate the array. This integrated circuit 12 may in turn be connected to one or more microprocessors 13 to further analyse the signals.

Please replace the paragraph beginning on page 8, line 3, with the following paragraph:

Where a detector array is in more or less continuous use, for example in surveillance or fire detection, it can be arranged that the test source is switched on at intervals under the control of a microprocessor 14. The additional signal from the detectors is monitored to ensure correct operation. Discrimination between the test radiation and that from the scene being viewed is simplified by using a modulated test source. Failures or loss of sensitivity of individual detectors may be distinguished from loss of transparency of the window or overall loss of detector sensitivity by analysis of the array output; this can be done by a microprocessor or microprocessors connected to the detector array so that different fault conditions for the equipment can be discriminated. As all the detectors are illuminated by the source, the failure of any detector may be seen in analysing the signal from the array when the test source is operated. Furthermore if the window becomes partially or completely obscured in operation there will be a diminution or absence of the signal from some or all of the detectors when the test source is operated.

Marked Up Version of Changes to the Claims:

19. (Amended) Apparatus as claimed in claim 7 including a microprocessor [or other processor for commanding the automatic testing of the apparatus] for switching on the test source at intervals.